**Fiji Mathematics Team Competition –National Final**

**Form 2 – 2013**

F2/1 Josh and Jake are running a race. Josh runs 5 meters per second and Jake runs 3 meters per second. How many meters ahead is Josh after 10 seconds if they started together?

F2/2 How many prime numbers are between 50 and 100?

F2/3 Rajnesh has two red flags and one white flag. How many different ways Rajnesh can

hang at least two flags vertically on a flagpole?

F2/4 Nancy **cycled** at a steady rate to school and **walked** home at a different steady rate. Her total travel time was 25 minutes. If Nancy walked both ways, her total travel time would be 40 minutes. What would be the total travel time if Nancy cycled both ways?

F2/5 I have a square with area 64 cm2. If I add one cm to each side of my square to make a new square, what will be the area in cm2 of my new square?

F2/6 Oscar runs 4 km in 20 minutes. At the same speed, how far can he run in one and a half hours?

F2/7 Arthur wants a new bicycle. He earns $2 a day for taking out the trash. If the bicycle costs $30, how many days must Arthur take out the trash for?

F2/8 Six friends are living in an apartment together and they evenly split the monthly

rent of three thousand dollars. By how many dollars does each person’s share of the monthly rent increase if one person moves out?

F2/9 Two thirds of a number divided by 5 is equal to 14. What is the number?

F2/10 In a clothing store, everything is 20% off. If Lilly wants to buy a yellow pair of pants that is originally at $15 and a pair of sunglasses that is originally at $25, much does Lilly end up paying?

F2/11 What is the median of the first 9 square numbers, given that the first square

number is 1?

F2/12 If 6 valentines and a sticker cost $3.20, and a sticker costs 20 cents, how much

will 24 valentines and 2 stickers cost, in dollars?

F2/13The areas, in cm2, of three adjacent faces of a rectangular prism are 6, 8 and 12. Find the volume, in cm3, of the prism.



F2/14 There are 35 students in Class 8. 18 students have a dog and 24 have a cat,

while 6 have no pets. How many of the students have a dog and a cat?

F2/15 In a twelve team tournament, if every team plays every other team twice, how many games are played in the tournament?

F2/16 David drops a ball that bounces back to half the height it fell. If David drops the

ball from a height of twelve meters, how many meters has the ball traveled when it hits the ground for the fourth time?

F2/17 Danny has cats, parrots, and goldfish for pets. If Danny’s 3 cats and 2 parrots together represent one-fourth of all his pets, how many goldfish does Danny have?

F2/18 Tickets to a math concert cost $4 for general admission and $6 for reserved seats. If 45 tickets were sold for a total income of $230, how many $6 tickets were sold?

F2/19 Chris climbs 200 m up a hill every day but slides down 30 m every night

while he sleeps. How many days will it take him to reach the top of a fifteen hundred meter hill?

F2/20 Uncle Sam wants to buy exactly three times as many candy bars as magazines. If

magazines cost $2.50 and candy bars cost 75 cents, how many candy bars can he buy if he has $20 to spend?

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Tie Breaker:

F2/21 Brian likes to feed the ducks. The first day he uses 1 slice of bread. The second

day he uses 2 slices of bread. The third day he uses 3 slices of bread. If this pattern continues, how many slices of bread will he use on the tenth day?

F2/22 If a race began at 3:43 p.m and ended at 5:57 p.m the same day, the race was

half over at what time?